



COMBAT STRESS & PTSD

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COMBAT & DEPLOYMENT STRESS

- OVERVIEW OF PRESENTATION
 - DEFINITIONS
 - BODY & MIND REACTIONS TO STRESS
 - WHY STRESS IS GOOD (IN THE SHORT RUN)
 - BODY & MIND ADAPTATION TO PROLONGED STRESS
 - WHAT TO DO YOURSELF TO RELIEVE STRESS
 - WHEN TO ASK FOR HELP

DEFINITIONS

- **Combat stress:** A state of mental or emotional strain or tension resulting from adverse or very demanding circumstances related to combat operations.
- **Anxiety:** A feeling of worry, nervousness or unease, generally out of proportion to actual threat.
- **Combat Operational Stress Reaction (COSR):**
A variety of physical and emotional signs related to an overwhelming traumatic event, or a result of ongoing combat and non-combat related stresses.
- **ASR/PTSD:** A clinical condition brought on by a life-threatening event(s) displaying symptoms in three realms. (hyperarousal, re-experience and avoidance) see handout for DSM IV-TR criteria
- **Mild TBI:** A concussion that may lead to problems like PTSD.

“THIS IS YOUR BRAIN ON STRESS”

- Amygdala
 - Initiates Fight or Flight via Nerve Output and Adrenaline
- Pre-Frontal Cortex
 - Integrates Emotional Response to Trauma
 - Major Negative Feedback on the Amygdala
 - Influences Attention, Decision Making and Working Memory
- Hippocampus
 - Shapes Conscious (explicit) Memories
 - With Amygdalar Input, Remembers Emotionally Traumatic Events

WHY ACUTE STRESS RESPONSE IS GOOD

- Central Response: (Adrenaline)
 - Increased HR and B/P (Circulation to Muscles)
 - Increased Attention and Cognition (Reaction Time)
 - Increased Respiration and Opens Airways
 - Blunting of Pain
 - Increased Fear Conditioning (Future Memory)
 - Immediate Release of Glucose from Storage in Liver (Quick Energy)
- Peripheral Response (Cortisol)
 - Mobilization of Energy from Liver and Body Fat
 - Enhanced Immune System (Fight Infection)

“BATTLEMIND”

- “The Soldier’s Inner Strength To Face Fear And Adversity With Courage”
- Encompasses Mental Toughness And Self Confidence
- These Learned Skills Help You Survive In Combat But Cause Problems If Not Adapted When You Get Home
- Subject Of Training Session At All Post Deployment Health Reassessment Briefings (PDHRA)

WHY CHRONIC STRESS IS BAD

- Prolonged Release of Adrenaline:
 - Persistence of increased HR and B/P (Hypertension)
 - Altered Intestinal Motility (Irritable Bowel Syndrome)
 - Hypervigilance/Sleep Disturbances
- Prolonged Release of Stress Hormones (Cortisol):
 - Increased Fat Storage (Obesity/Diabetes Type II)
 - Suppressed Growth and Reproduction
 - Possible Immune System Deregulation (Risk for Infections/Disease)
 - Possible Reduced Neurogenesis (Impaired Memory Formation)
- Changes in the Amygdala
- Changes in the Pre-Frontal Cortex
- Changes in the Hippocampus

Serotonin and PTSD

- Acute Response

- Fight response
- Aggressive retaliation
- Self defense
- Rage
- Attenuation of fear

- Symptom Sequelae

- Aggression
- Violence
- Suicide attempts
- Impulsivity
- Depression
- Anxiety/panic



Three Types Of Stress Injuries Observed In Theater

COMBAT / OPERATIONAL STRESS

TRAUMA

- An impact injury
- Due to events involving terror or horror

FATIGUE

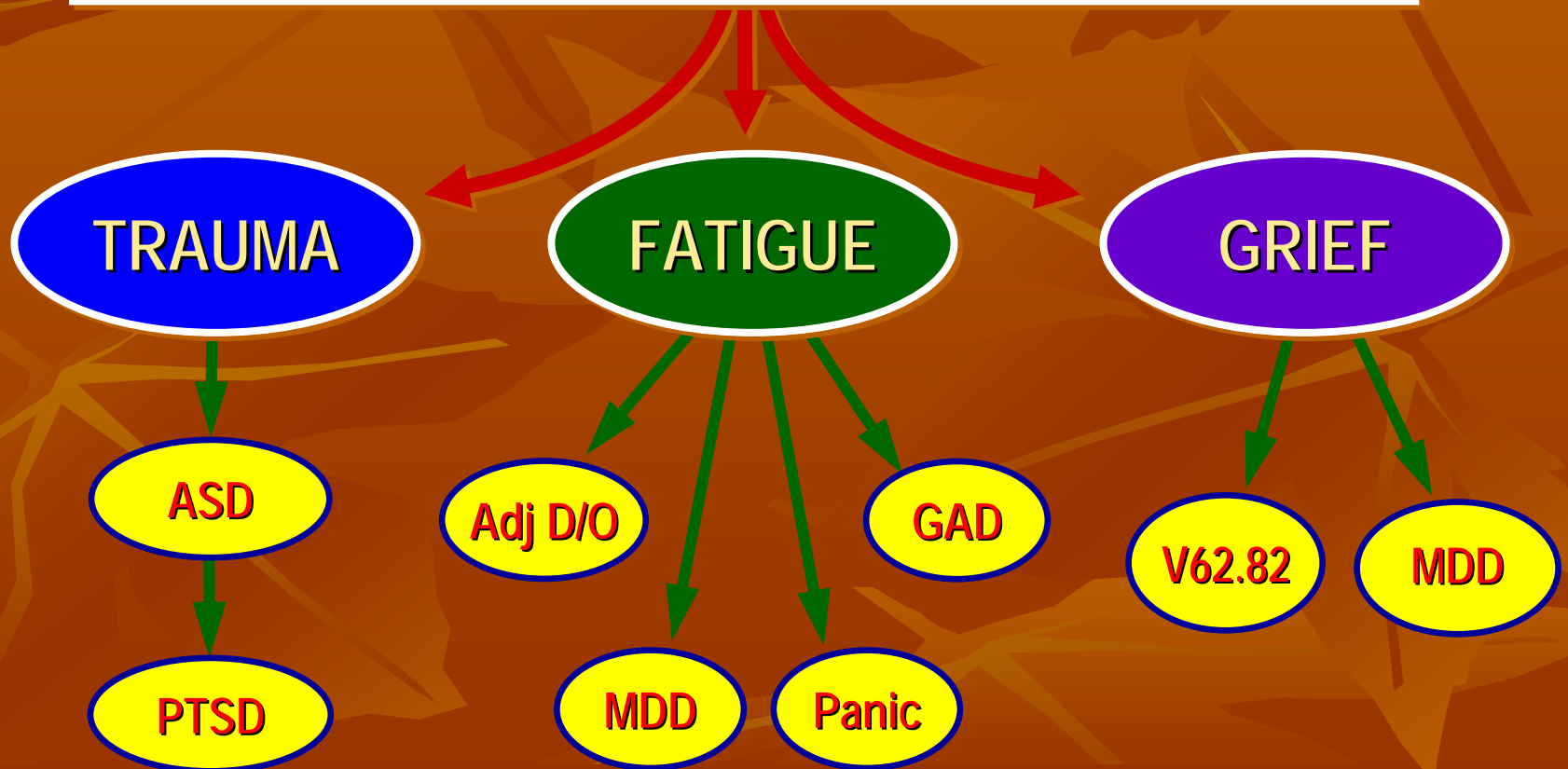
- A wear-and-tear injury
- Due to the accumulation of stress over time

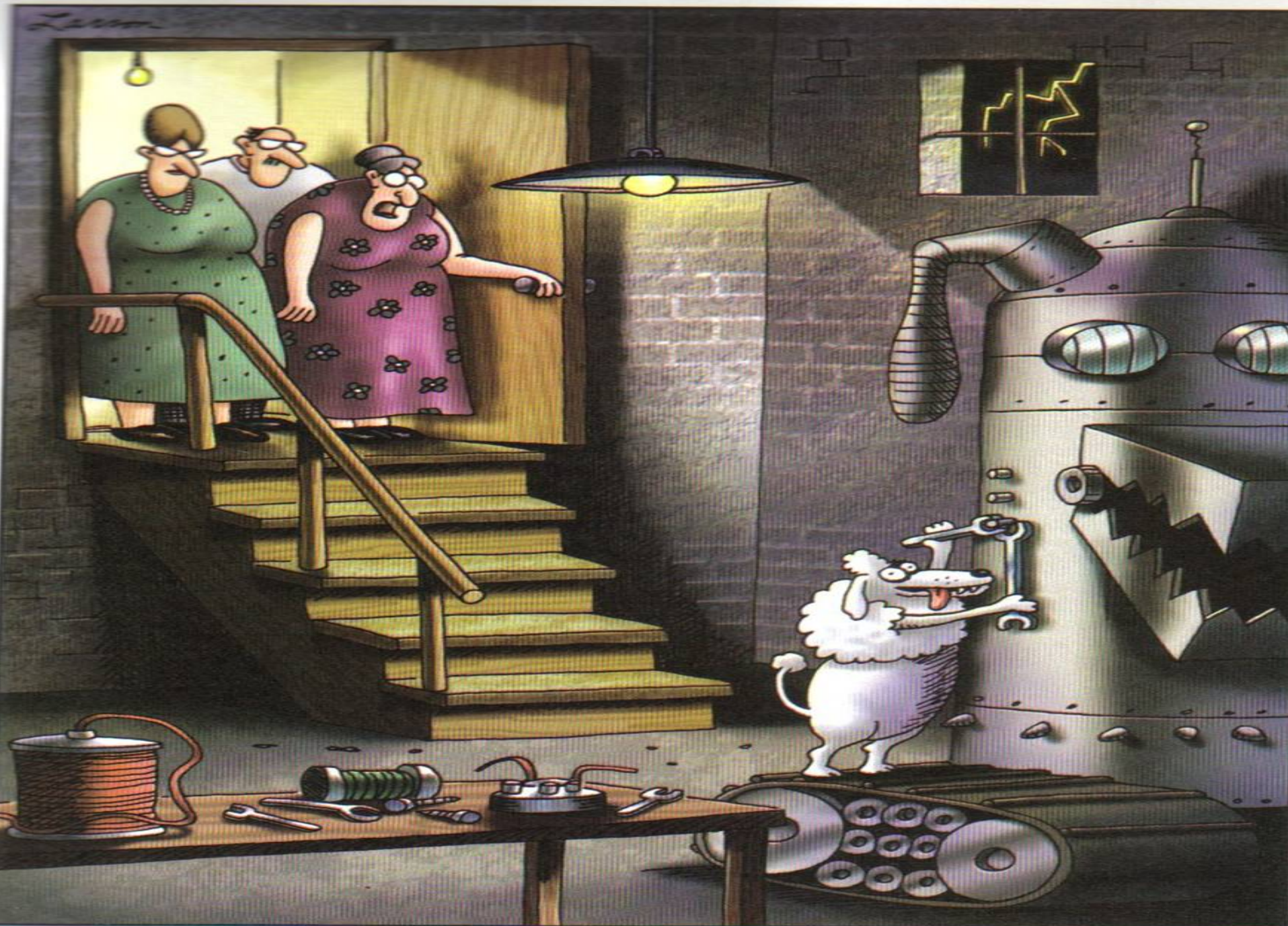
GRIEF

- A loss injury
- Due to the loss of people important to you

Operational Stress Injuries May Persist as DSM-IV Diagnoses

COMBAT / OPERATIONAL STRESS





"And down here we keep Fluffy. ... We're afraid he may have gone mad."

OIF/OEF STATS

- Current as of 12/2007 (1st Qtr FY08) *source DVA
- 837,458 Separated Returnees (Vets)
- About an equal number still active duty
- 324,846 (39%) Have seen VA for some reason
- 120,049 (16%) some MH Dx
- 71,595 (9%) are Dx with ASR/PTSD
- Remaining 7% had various other MH Dx including substance use/abuse
- OEF/OIF Vets represent about 6% of VA population

NE/West.IA STATS

- Dx PTSD 40%
- Dx Adj. Disorder 36%
- Dx Substance abuse 13%
- Dx Depression 12%
- Dx Anxiety 5%
- Dx MST 1%

NATURAL HISTORY OF STRESS REACTIONS

- These Are Current Estimates Based On Civilian PTSD DX Without Treatment

*source: Synopsis of Psychiatry 2004 Kaplan et. al.

- Those Who Recover: ~30%
- Those Who Improve But Have Some Mild Symptoms: ~40%
- Those Who Improve But Have Moderate Symptoms: ~20%
- Those Who Stay The Same Or Get Worse: ~10%

THE CASE FOR TREATMENT

- Reduction in symptoms
- Prevent “Drift”
- Increase “Cure Rate” ??

WHAT CAN I DO MYSELF TO HELP

- Education (Knowledge is Power)
- Battle Buddy
- Peer-To-Peer
- Chaplain/Clergy
- Family
- Relaxation Skills
- Exercise !!!

WHAT CAN I DO TO HURT MYSELF

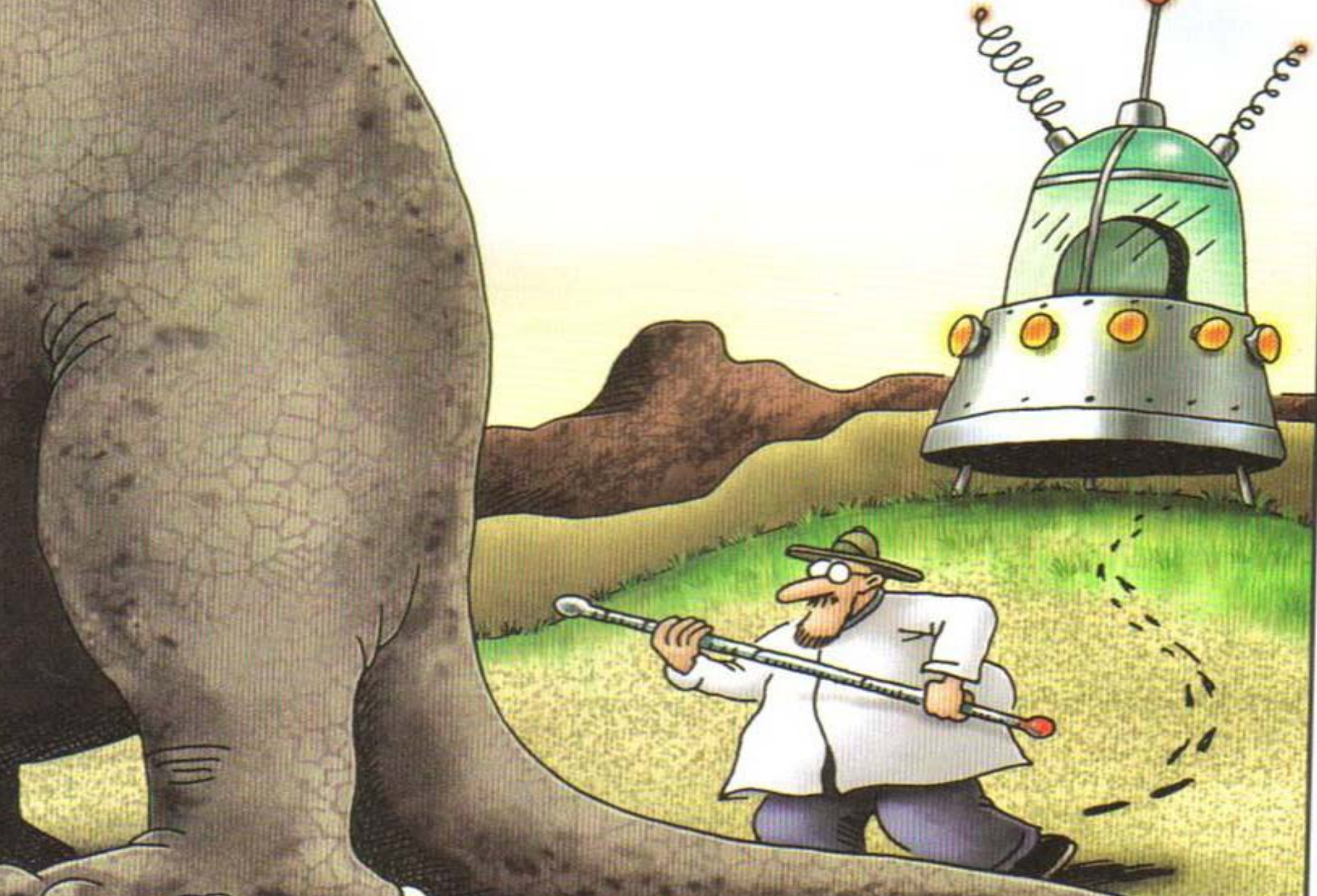
- Risk Taking Behavior
- Alcohol/Drugs (DUI)
- Isolation
- Carrying Weapons
- Road Rage

WHAT WE (VA) DO

- Evaluation
- Testing
- Counseling
- Medications (Band-Aid Therapy)
- Case Management
- Substance Use Treatment Programs
- Crisis (inpatient) Management
- Claims/Voc Rehab

COMBAT STRESS

- THREE TAKE-HOME MESSAGES!!!
 - YOU'RE NOT ALONE (IT'S NORMAL)
 - MOST STRESS IS GOOD
 - ASK FOR HELP WHEN YOU NEED TO



AN INSTANT LATER PROFESSOR WAXMAN AND HIS TIME MACHINE ARE
OBLITERATED, LEAVING THE COLD-BLOODED/WARM-BLOODED DINOSAUR
DEBATE STILL UNRESOLVED.